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IMAGES IN CARDIOLOGY

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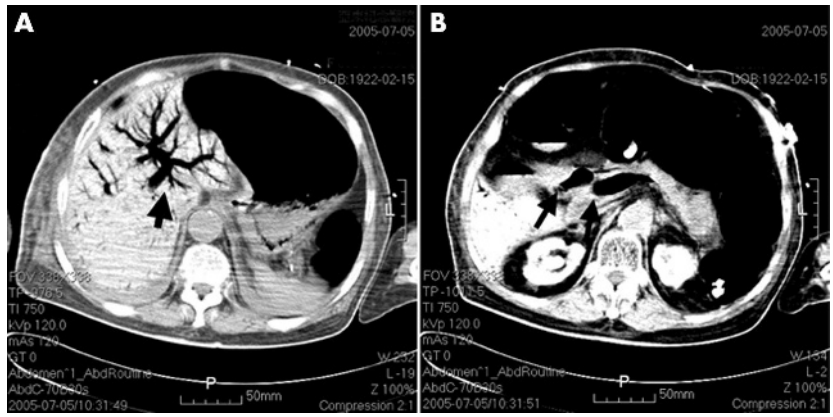
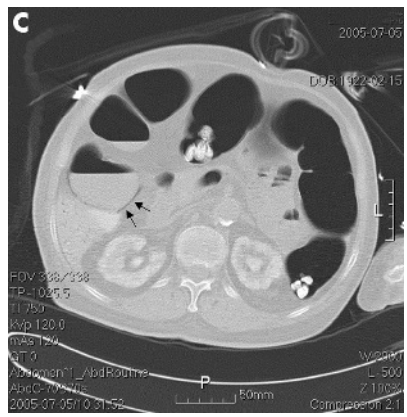
Severe aeroportia in a patient with acute myocardial infarction, complicated by acute ischaemic bowel syndrome

An 83 year old woman presented with acute anterior myocardial infarction, Killip class I. She received percutaneous coronary intervention for ensuing cardiogenic shock. An intra-aortic balloon pump (IABP) was applied via the right femoral route. The patient's haemodynamics became stable within two hours and all inotropes were discontinued. Further episodes of hypotension, sinus tachycardia, metabolic acidosis and acute abdominal distension developed 12 hours after the intervention. The echocardiogram showed good left ventricular contractility, without cardiac tamponade. IABP-related aortic haemorrhage was suspected initially. Aggressive combination treatment was implemented with high dose dopamine, norepinephrine, epinephrine and vasopressin. However, the shock persisted. Abdominal computed tomography (CT) did not show a retroperitoneal haematoma but did reveal extensive bowel dilatation and massive air in the intrahepatic (panel A) and spleno-portal vein (aeroportia) (panel B). Air within the intestinal submucosa was also noted (pneumatosis intestinalis) (panel C). The diagnosis of acute ischaemic bowel was confirmed. The patient died 15 hours after the initiation of shock, despite aggressive medical treatment.



Pneumatosis intestinalis is an uncommon but important condition in which gas is found in a linear or cystic form in the submucosa or subserosa of the bowel wall. Gas accumulation in the portomesenteric veins (aeroportia) is even more rare. The presence of pneumatosis intestinalis and aeroportia caused by bowel ischaemia does not generally predict transmural bowel infarction, because they may be observed in patients with only partial ischaemic bowel wall damage. The clinical outcome of patients with bowel ischaemia with these CT findings seems to depend mainly on the severity and extent of their underlying disease.



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Competing interest statement: There was no competing interest to declare.